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SAR 14110

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

- 1. (Canceled)
- 2. (Currently amended) A method for performing timing recovery comprising: producing a phase signal by comparing a signal received at each of a plurality of inputs to a timing signal produced by a numerically controlled oscillator (NCO); summing said phase signals to produce a sum; adjusting said sum into an input range for the numerically controlled oscillator (NCO). The method of claim 1 wherein said adjusting comprises: determining whether each input can be accurately received; and dividing the sum by a number of potentially receivable inputs; and producing a timing signal within the NCO in response to the adjusted sum.
- (Original) The method of claim 2 wherein said determining comprises: determining whether an amplitude of each input is greater than a threshold value.
- 4. (Canceled)
- 5. (Currently amended) A method for performing timing recovery comprising:

 producing a phase signal by comparing a signal received at each of a plurality of inputs to a timing signal produced by a numerically controlled oscillator (NCO);

 summing said phase signals to produce a sum;

 adjusting said sum into an input range for the numerically controlled oscillator (NCO), wherein said adjusting comprises:

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determining whether each input is receivable. The method of claim [[4]] wherein said determining comprises:

determining whether an amplitude of each input is above a threshold value;

determining an offset using a number of receivable inputs; and adjusting the sum using the offset; and

producing a timing signal within the NCO in response to the adjusted sum.

6. (Currently amended) A method for performing timing recovery comprising:

producing a phase signal by comparing a signal received at each of a plurality of inputs to a timing signal produced by a numerically controlled oscillator (NCO);

summing said phase signals to produce a sum;

adjusting said sum into an input range for the numerically controlled oscillator (NCO), wherein said adjusting comprises:

determining whether each input is receivable;

determining an offset using a number of receivable inputs; and
adjusting the sum using the offset. The method of claim [[4]] wherein said
adjusting by said offset comprises:

adding the sum by the offset if the sum is below the input range;
and

producing a timing signal within the NCO in response to the adjusted sum.

7. (Currently amended) A method for performing timing recovery comprising:

producing a phase signal by comparing a signal received at each of a plurality of inputs to a timing signal produced by a numerically controlled oscillator (NCO);

summing said phase signals to produce a sum;

adjusting said sum into an input range for the numerically controlled oscillator (NCO), wherein said adjusting comprises:

determining whether each input is receivable;
determining an offset using a number of receivable inputs; and

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<u>adjusting the sum using the offset</u>, The method of claim [[4]] wherein said adjusting by said offset comprises:

subtracting the sum by the offset if the sum is above the input range; and

producing a timing signal within the NCO in response to the adjusted sum.

- 8. (Canceled)
- 9. (Currently amended) An [[The]] apparatus of claim 8 further for performing timing recovery of a signal received at a plurality of inputs, said apparatus comprising:
- a plurality of phase detectors each detecting a phase of said signal at a different input by comparing the input signal to a timing signal from a numerically controlled oscillator (NCO);
 - a summer for adding said detected phases to form a sum;
 - a level shifter for adjusting the sum to within an input range of said NCO;
 - a loop filter for filtering the adjusted sum:
 - the NCO for generating a timing signal in response to the filtered sum;
- a plurality of signal detectors each for determining whether an input signal is receivable; and
- a decision circuit using a total of receivable input signals to determine an adjustment to the sum by said level shifter.
- 10. (Original) The apparatus of claim 9 wherein said decision circuit divides the sum by the total of receivable input signals.
- 11. (Original) The apparatus of claim 9 wherein said decision circuit determines an offset that is added to or subtracted from the sum by said level shifter.